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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,468	03/11/2004	Casey Prindiville	6047-68004-01	7702
24197	7590	03/28/2005	EXAMINER	
KLARQUIST SPARKMAN, LLP 121 SW SALMON STREET SUITE 1600 PORTLAND, OR 97204			CHAN, SING P	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,468

Applicant(s)

PRINDIVILLE, CASEY

Examiner

Sing P Chan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 4-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/11/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 4 and 7-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 and 6 of U.S. Patent No. 6,543,510 in view of VanNortwick et al (U.S. 6,025,212).

3. Claims 1-4 and 6 of U.S. Patent No. 6,543,541 discloses an adhesive film with a coverlay film on a reel, a drive wheel assembly comprising a push wheel and a second lower push wheel, which are biased by spring, a pinch wheel assembly in conjunction with drive wheel assembly to remove the coverlay film, idler assembly with an idler roller with a spring biasing the to push or pull the adhesive film to eliminate or add slack to the adhesive film, a cutter assembly with a cutting blade and a side rail and a channel for guiding the film into an opening, cutter block, which move through the cutter assembly

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opening and cut the film and apply the film to the support element. US Patent '541 is silent as to the apparatus includes a support element feeder, the cutter block is move into engagement with the support element by a piston, and a vacuum in the cutter block held the adhesive film in engagement with the cutter block. However, providing a support element feeder, the cutter block is move into engagement with the support element by a piston, and a vacuum in the cutter block held the adhesive film in engagement with the cutter block is well known and conventional as shown for example by VanNortwick et al (U.S. 6,025,212). VanNortwick et al discloses a support element feeder, the cutter block is move into engagement with the support element by a piston, and a vacuum in the cutter block held the adhesive film in engagement with the cutter block. (Col 4, lines 61-66, Col 6, lines 25-35, and Col 6, line 66 to Col 4) One having ordinary skill in the art would have been motivated to provide a support element feeder, the cutter block is move into engagement with the support element by a piston, and a vacuum in the cutter block held the adhesive film in engagement with the cutter block as disclosed by VanNortwick et al in the apparatus of US Patent '541 provide an improved apparatus for cutting and applying a tape or film to a support element with no wasted. (Col 2, lines 21-23)

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "where the length of adhesive is larger than the adhesive film-strip." For the purpose of examination, "where the length of adhesive film is larger than the adhesive film-strip" will be assumed.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 4, 7-10 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by VanNortwick et al (U.S. 6,025,212).

Regarding claims 4, 8, 9, 17, and 18, VanNortwick et al discloses an apparatus for applying a tape to lead-on-chip leadframe. The apparatus includes a length of adhesive tape on reels, drive mechanism for advancing the length of adhesive tape, an adhesive tape cutting assembly attachment, with a film cutting blade and a cutter block for attaching the tape by pressing the tape to the frame, and a support frame handler or feeder for guiding and feeding support frame to the location for applying the tape. (Col

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3, lines 54-60, Col 4, lines 32-36, Col 4, line 61 to Col 5, line 8, Col 5, lines 59-63, Col 6, lines 7-14)

Regarding claim 7, VanNortwick et al discloses groove (92) for guiding tape onto the cutting block. (Col 6, lines 8-14)

Regarding claims 10 and 11, VanNortwick et al discloses the feed rollers (46 and 48) are mounted opposite of each other and is spring loaded to permit tensioning of the tape. (Col 4, lines 25-36)

Regarding claim 19, VanNortwick et al discloses the cutter block is driven up and down on guide posts by a hydraulic cylinder, which includes a piston. (Col 6, line 66 to Col 7, line 4)

Regarding claim 20, VanNortwick et al discloses the cutter block includes vacuum passages to apply a vacuum force to the tape. (Col 6, lines 25-35)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 and 6 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over VanNortwick et al (U.S. 6,025,212).

The apparatus as disclosed by VanNortwick et al discloses the tape feed rollers (46, 48) are drivably connected to stepping motors to drive the feed rollers a predetermined complete or partial revolutions and move the tape a corresponding linear

amount or length into the tape cutter (Col 4, lines 25-36), which allow a user to modified the amount of tape to be applied to the support and to provide a cover for any support element covering any amount such about 70% to 98% of a wire bond slot on a support element. In any event, one of ordinary skill in the art would appreciate modifying the amount of tape to be feed into the tape cutter to logically use the only amount of tape required to cover the support element.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to logically provide modified the amount of tape feed into the tape cutter in the apparatus of VanNortwick et al to allow a user to easily apply just the required amount of tape the support element.

10. Claims 12-13 rejected under 35 U.S.C. 103(a) as being unpatentable over VanNortwick et al (U.S. 6,025,212) as applied to claim 10 above, and further in view of Saito et al (U.S. 6,080,263).

VanNortwick et al as disclosed above does not disclose a coverlay film for the tape and a wheel assembly to remove the coverlay film from the adhesive film. However, a coverlay film over the adhesive tape to protect the adhesive on the tape until use and a wheel assembly to remove the coverlay film from the adhesive film is well known and conventional as shown for example by Saito et al. Saito et al discloses a method for applying an adhesive film to a semiconductor wafer. The method includes providing an adhesive tape with a release liner, removing the release liner from the adhesive tape with a drive roller and a pinch roller prior to applying the tape. (Col 3, lines 10-28 and Col 5, lines 19-42)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a release liner, i.e. coverlay film, and using a drive and pinch rollers or wheels assembly to remove the coverlay film prior to applying the tape as disclosed by Saito et al in the apparatus of VanNortwick et al to protect the adhesive on the tape and to allow easier removal of the tape from the reel.

11. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over VanNortwick et al (U.S. 6,025,212) further in view of Saito et al (U.S. 6,080,263) as applied to claim 12 above, and further in view of Wroblewski (U.S. 3,788,572).

Regarding claims 14 and 15, VanNortwick et al as modified above is silent as to the apparatus comprises of an idler assembly positioned downstream of the drive wheel assembly. However, providing an idler roll assembly positioned downstream of the drive wheel assembly to allow tension of the tape to be adjusted and providing an idler assembly positioned downstream of the drive wheel assembly is well known and conventional as shown for example by Wroblewski. Wroblewski discloses a strip take-up device. The device includes a strip tension sensing assembly where the idler assembly is positioned downstream of the drive wheel assembly, which retract and extend in responds to the tension in the strip to add or eliminate slack to the strip. (Col 7, line 56 to Col 8, line 64 and Figures 1A, 3, 4, and 6)

It would have been obvious to one skilled in the art at the time the invention was made to provide an idler assembly positioned downstream of the drive wheel assembly as disclosed by Wroblewski in the apparatus of the VanNortwick et al as modified by Saito et al to allow the tension in the strip to be adjusted by adding or eliminating the

slack in the strip to prevent the tape from breaking or fouling the mechanism without the need to use expensive limit switch. (Col 2, lines 10-13)

Regarding claim 16, VanNortwick et al as modified above is silent as to the idler assembly includes a spring biasing the idler roller in a downstream direction. However, using a spring to biasing the idler roller in a downstream direction is well known and conventional as shown for example by Wroblewski. Wroblewski discloses a spring is used to bias the idler roller in the downstream direction. (Figures 1A, 3, 4, and 6)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a spring to bias the idler roller as disclose by Wroblewski in the apparatus of VanNortwick et al to allow the tension in the tape to be adjusted to prevent breakage or fouling of the mechanism without the need to use expensive limit switch. (Col 2, lines 10-13)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sing P Chan whose telephone number is 571-272-1225. The examiner can normally be reached on Monday-Friday 7:30AM-11:00AM and 12:00PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher A Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chan Sing Po

spc

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**CHRIS FIORILLA
SUPERVISORY PATENT EXAMINER**

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